

IMPACT OF SUBSIDY ON AGRICULTURE SECTOR IN INDIA- AN ANALYTICAL STUDY

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ABSTRACT

In India from last several years government provides subsidies to agriculture sector in direct & indirect form. But how much they are beneficial to agriculture sector is question. To find out the answer of this question authors study about factors measure & contributing to growth of agriculture sector. e.g. Finance, Production, Infrastructure, Irrigation & Technology etc. The exact measurement of impact of subsidies on agricultural sector is not easy task. The subsidies are really beneficial to agriculture sector but due mismanagement in distribution system they are not reach to end users i.e. farmers in India. This study based on secondary data which are published by government & researchers.

KEYWORDS: Agriculture, Subsidies, Impact & Factors

INTRODUCTION

Agriculture subsidies are one of hottest issue of debate in world. More than twenty years every country gives big percent of subsidies to agriculture sector for development agriculture sector. And some kind development is happen in agriculture sector we have lot proof for this growth. But now every country tries to reduce the level of agriculture subsidies for reduce the burden on economy. What exactly happen regarding agriculture subsidies? They are really harmful to economy? These are big questions towards country. Before find out answer of above question first we find out answer of impact on agriculture subsidy. There are different' views of economics, expert & governments etc regarding impact of agriculture subsidies. According to economics it is harmful to economy it wants to reduce. According to agriculture expert they are really beneficial for growth of agriculture sector.

In this paper authors study about what is impact of subsidies on agriculture sector with help of previous research, government reports, articles etc. The question is how we can measure the impact. For this thing we study about important factor measure & contribute to growth of agriculture sector.

Subsidies

It was developed extensively in the EU and USA across the two World Wars and the Great Depression to protect domestic food production, but remains important across the world today. A subsidy (also known as a subvention) is a form of financial assistance paid to an individual, a business or an economic sector in order to achieve certain policy objectives. This means that any monetary exchange which is not directly connected to paying for a service can be defined as a subsidy. Financial assistance in the form of a subsidy may come from one's national or local government, but the term subsidy may also refer to assistance granted by others, such as individuals or non-governmental institutions, although these would be more commonly described as charity. There are two major forms of agriculture subsidies, first one is direct & another is

indirect. Agricultural subsidies are monies given to farmers to support their operations. Subsidies may be provided directly, in the form of cash payments, or they may take the form of indirect support.

A government might provide low-cost crop insurance, for example, keep prices at an artificial level, or assist farmers in other ways. Subsidies are a feature of many government budgets, and a topic of hot debate in some regions of the world.

In the case of a positive subsidy, a farmer is rewarded for growing a crop, with the money usually being based on the amount of crop being grown or the amount of the harvest. With negative subsidies, farmers are encouraged not to produce a particular crop or product. For example, if milk production is extremely high, farmers might be paid subsidies not to raise dairy cows, to reduce the amount of dairy on the open market. India has made remarkable strides on the agricultural front during the last decades. Much of the credit for this success should go to the several million small farming families that form the backbone of Indian agriculture and economy. Policy support, production strategies, public investment in infrastructure, research and extension for crop, livestock and fisheries have significantly helped to increase food production and its availability.

During the last 30 years, India's foodgrain production nearly doubled from 102 million tons in the triennium ending 1973 to nearly 200 million tons (mt) in the triennium ending (TE) 1999. Virtually all of the increase in the production resulted from yield gains rather than expansion of cultivated area. Availability of foodgrains per person increased from 452 gm/capita/day to over 476 gm/capita/day, even as the country's population almost doubled, swelling from 548 million to nearly 1000 million. Increased agricultural productivity and rapid industrial growth in the recent years have contributed to a significant reduction in poverty level, from 55 percent in 1973 to 26 percent in 1998. Despite the impressive growth and development, India is still home to the largest number of poor people of the world. With about 250 million below the poverty

REVIEW OF LITERATURE

As mentioned in report of The Economic and Environmental Impacts of Agricultural Subsidies: An Assessment of the 2002 US Farm Bill and Doha Round, The higher subsidies such as provided for in the 2002 US Farm Bill tend to lead to an Intensification of agricultural production in OECD countries which can generally be considered detrimental to the environment in terms of exposure to pesticides and fertilizers and habitat destruction, to mention just a few. In addition, some forms of subsidies may have a technology "lock-in" effect that might impede the shift to less environmentally harmful practices. They also lead to increased specialization and reduced agro-biodiversity. A reduction in domestic support would force farmers to diversify production in order to reduce risk, thereby increasing agrobiodiversity.

Impact on Agriculture Sector

To study the impact of subsidies on agriculture sector with help of important factor contribute to growth of agriculture sector.

Agriculture Finance

Agricultural credit has played a very important role in sustaining farm production in India. Though the outreach and amount of agricultural credit have increased over the years, several weaknesses have crept in which have affected the viability and sustainability of these institutions. The government of India provides the finance to agriculture on subsidized

rate for farming. It is helpful to farmers in India because in India near about 11% of people are farmers & in which 11% most of farmers have land but does not have sufficient finance for farming. Through subsidized finance farmers are doing farming. Mainly three types of finance are requiring for agriculture sector. i.e. Short term, Medium term & Long term finance .

The period of long-term credit is generally 5 to 20 years or even more in some special cases.. In Agriculture, long-term investment comprises of sinking well, land leveling, fencing and permanent improvements on land purchase of big machinery like tractor with its attachments including trolleys, establishment of fruit orchard of mango, cashew, coconut, sapota (chiku), orange, pomegranate, fig, guava, etc. It is available through the nationalized bank. In medium term finance mostly include finance for farm equipment & small machinery e.g. tractor, thrasher & other equipments. In short term finance include crop finance duration of this finance is one year to two years & percent of interest is very low i.e. 2% to 4%. The agencies provide finance to the cultivators is Private agencies: (a) money lenders and landlords; (b) commercial banks. & public or semi-public agencies: (a) the State; (b) co-operative societies.

Table 1: The Following Table Gives Detail Information about Finance Towards Agriculture Sector

Sr. No.	Years	Target	Achievement
1	2004-05	105000	125309
2	2005-06	141000	180486
3	2006-07	175000	229400
4	2007-08	225000	254658
5	2008-09	280000	287149
6	2009-10	325000	384514
7	2010-11	375000	468291
8	2011-12	475000	511029
9	2012-13	575000	308025*
10	2013-14	700000	

*As on 31 October, 2012 **Source:** Department of agriculture & cooperation, ministry of agriculture, Govt. of India

The above figures shows that the percentage of agriculture finance in India is continuously increase & it positively affect on production of agriculture goods in India

Production

The India is one of the major producers of agriculture goods in world. As per of different geographical area various crops yield in India. India holds the second position in production of wheat, rice, cotton, sugarcane, and groundnuts. It is also the second biggest harvester of vegetables and fruit, representing 8.6% and 10.9% of the overall vegetable and fruit production in the world correspondingly.

Table 2: Production of Major Crops During the Recent Years (Million Tonnes/Bales)M²

Crop	2007-08	2008-09	2009-10	2010-11	2011-12 Final Estimates	2012-13 2nd Adv Estimates
Rice	96.69	99.18	89.10	95.98	105.31	101.80
Wheat	216.01	219.90	203.45	226.25	242.23	232.5
Pulses	14.76	14.57	14.66	18.24	17.09	17.57
Foodgrains	230.78	234.47	218.10	244.49	259.32	250.15
oilseeds	29.75	27.72	24.88	32.48	29.80	29.46
Sugarcane	348.19	285.03	292.30	342.38	361.04	334.54

Table 2: Contd.,

Cotton*	25.88	22.28	24.02	33.00	35.20	33.80
Jute & Mesta**	11.21	10.37	11.82	10.62	11.40	11.13

*(million bales of 170 kg each),**(million bales of 180kg each)Source- State of Indian Agriculture 2012-13 Government of India, Ministry of Agriculture, Department of Agriculture and Cooperation, Directorate of Economics and Statistics, New Delhi

The agriculture production in India is continuously increases in last year's. In year 2007-08 the gross annual production of all crops is 973.27 million tones & in year 2012-13 is 1010.95 million tones. As we compare the table no.1 & 2 we easy found that amount of subsidies is increase at same time production level of agriculture goods also increases. It shows that subsidies help to increase agriculture productivity.

Irrigation

According to a World Bank report, published in 2010. Agricultural irrigated land refers to agricultural areas purposely provided with water, including land irrigated by controlled flooding. The Agricultural irrigated land (% of total agricultural land) in India was 35.12 in 2009. Irrigation in India refers to the supply of water from Indian rivers, tanks, wells, canals and other artificial projects for the purpose of cultivation and agricultural activities. In country such as India, 64% of cultivated land is dependent on monsoons. In Last decade India has improved irrigation. India has over 20 million irrigation wells. We add 0.8 million/year, increasing irrigation in canal and tank commands is with Pumped water. Every fourth cultivator owns an irrigated well; non-owner depends on ground water. Agricultural irrigated land (% of total agricultural land) in India was 35.19 as of 2010. Its highest value over the past 9 years was 35.19 in 2010, while its lowest value was 29.88 in 2003.

The central & state government of India provides large amount of subsidies to agriculture irrigation. Generally 50 % of subsidies are available for agriculture irrigation in India. The percentage of subsidies on irrigation in Karnataka is up to 90%. This thing is very beneficial for agriculture sector growth in India.



Source: World Bank Indicators

Figure 1: The Percentage of Irrigation in Agriculture Sector

The above graph shows that the percentage of irrigation in agriculture sector is continuously increases. In Year 2004 the percent of irrigated land in India is 31.63% & year 2010 is 35.12 % as compare to total agriculture land.

Technology

Technology is one of the important factors in growth of any sector. In India moving towards technological growth, last few year farmers adopt new technique. The most of old farming method are removed by new & advance technique. e.g for water supply, farmers was used conventional methods in forming this thing gives low production due to inefficient utilization of water recourses. Now most of farmers go to irrigation, due irrigation maximum utilization of water recourse is possible this thing helps in production. The methods of harvesting are changes; use advance machinery in forming is increases day by day this thing help in production of agriculture goods.

Table 3: Farm Machinery Availability in India

Agriculture Operation/ Machine	No. of Lacks*		Command Area in Percentage of Net Area Sown
	1992	2003	
Tractors	12.22	23.61	25
Seed -drill			
i) Tractor drawn	3.9	73.5	11.15
ii) animal drawn	51.03	23.77	12.06
Thresher			
i) Wheat	10.76	7.26	17
ii) Paddy	0.35	1.61	2.21
iii) Multicrop	1.68	6.81	5.76
Plant Protection equipment	29.56	58.31	48.39

Source: Mehata 2007

The table shows number of machinery consciously increases from 1992 to 2003. This increase numbers shows that use advancement of technology in agriculture sector. These changes possible only through government subsidies available for purchasing of machinery required for agriculture production. The government provides up to 30% of subsidies on purchasing of farm equipments' in India. This benefit encourage to farmers to buy more farm equipment for farming

Infrastructure in Agriculture

When we discuss about infrastructure facility in India, we are lack of behind as compare to other countries. We have many challenges regarding to infrastructure facility in India e.g. we have only 50% storage capacity as compare to production, un advance cold storage house for food grain. But we are continuously improving this factor from last decade; in every five year plan & annual budget government make lot of fund arrangement for agriculture infrastructure development. The following table shows the development of agriculture infrastructure in India from last few decades.

Table 4: All India Expanded Stock of Infrastructure [1950-51 to 1995-96]

Year	Irrigated Area Million Hectares	Fertilizer Production Million Tons	Number of Regulated Wholesale Markets	Power Generation Billion kwh	Road Length Km	No. of Commercial Vehicles Million
1950-51	22.56	0.05	206	5.1	400000	0.116
1960-61	27.98	0.15	715	16.9	524,000	0.225
1970-71	38.19	1.05	1777	55.8	918,000	0.437
1980-81	49.73	3.008	4158	110.8	1,491,000	0.701
1990-91	62.47	9.045	6250	264.3	2,037,000	1.744
1995-96	70.25	11.703	6836	380.0	2,884,000	2.221

India between 1950-51 and 1995-96 increased irrigated area to 70.25 million hectares, produced 11.703 million tons of fertilizers, established 6836 regulated wholesale markets, generated 380 billion kwh power, constructed 28,84,000 km of roads and added 2.221 million commercial vehicles, which modestly improved farm productivity and output and the process continues. The major things behind this development of agriculture infrastructure possible with help of government role & subsidy to agriculture sector.

Fertility of Agriculture Land

The fertility of land is one of important factor of good agriculture production. But now day excessive use of chemical fertilizer decreases the fertility of agriculture land. For more production farmers used more amounts of fertilizers in farm it result good production but at same time fertility of land is low. The government provides the subsidies on fertilizer this thing increase the farmer to buy fertilizer & much more use on farm. According to Prof Surendra Singh such imbalanced fertilization practice has aggravated the problem of deficiencies in available nutrients and is the root cause of deteriorating soil fertility and productivity of vegetables. Results further revealed that the intensively cultivated soils of the area showed deficiency of phosphorus, potassium, sulfur and zinc to extent of 54, 22, 46 and 33 per cent respectively. This suggests that excessive use of nitrogen over phosphorus and potash fertilizers and little use of organic source of nutrients have resulted in depletion of other soil available nutrients in the vegetable growing area. According to him, the decline in productivity in these soils over the years is a matter of great concern. Balanced fertilization of nitrogen, phosphorus, potassium, sulfur and zinc along with application of farmyard manure, compost, green manure and biofertilizers should be practiced for sustained soil health and enhanced productivity of vegetables in the years to come. Domestic fertilizer production increased from 4.09 million metric tons in 1981/82 to 14.43 million metric tons in 2002/03. Corresponding figures for fertilizer consumption were 6.06 million tons and 16.09 million tons respectively

Farmers

The standard of living of farmers improved through yield in crops with the help of government agriculture subsidies. Subsidies are strengthening to farmers for farming in India, without help of subsidies farmers cannot do farming because of yield of crops mostly depend upon environment. The nature of environment can't be measure by any one. But subsidies also give some adverse effect on farmers, it makes lazy to farmer. The Indian farmers are habitual of government support they can't do anything by themselves. They always depend on government facility. This is another negative impact of subsidies on agriculture sector.

CONCLUSIONS

The above study clearly mentions that subsidies make some positive & negative impact on agriculture sector of India. In last few year percentage of agriculture sector in GDP is decrease but at same time production of agriculture sector is also increases with investment. The increase in population & inflation is measure factor for low contribution of agriculture sector in India GDP. But agriculture subsidies play vital role in growth of agriculture sector in India. Without help of subsidies development of agriculture sector is very difficult. Due to corruption & ineffective management of subsidies in India, it has not reach to end users i.e. farmers & another side due to illiteracy of farmer regarding agriculture subsidies, he can't take benefit in farming & faced financial crisis. If these two lacunas removed in country, the subsidies are really beneficial to farmers.

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